

(43) International Publication Date 24 June 2004 (24.06.2004)

PCT

(10) International Publication Number WO 2004/052752 A1

(51) International Patent Classification7: G11B 33/04

B65D 85/57.

(21) International Application Number:

PCT/SE2003/001944

(22) International Filing Date:

12 December 2003 (12.12.2003)

(25) Filing Language:

Swedish

(26) Publication Language:

English

(30) Priority Data: 0203675-4

12 December 2002 (12.12.2002)

(71) Applicant and

(72) Inventor: SKARIN, Jakob [SE/SE]; Maria Bangata 17, S-118 63 Stockholm (SE).

(74) Agents: BJELKSTAM, Peter et al.; Bergenstråhle & Lindvall AB, P.O. Box 17704, S-118 93 Stockholm (SE).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

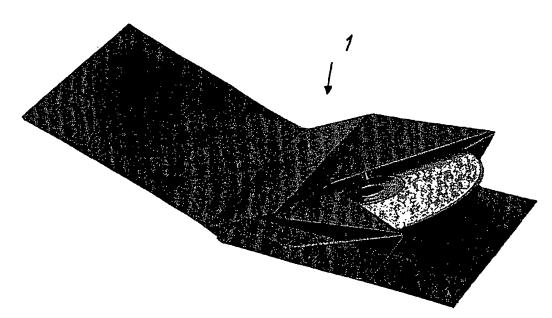
(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PACKAGE



(57) Abstract: The invention relates to a package for sheets, for example sheet formed information carriers such as CD-sheets, DVD, CDR, CD-RW and so on and comprising an outer envelope (3) and an inner envelope (4) formed separately or in one and a same piece together with said outer envelope, manufactured by carton, paper, plastic, wellpapp or the like which have been folded to constitute a cover protecting the sheets (2) or the actual sheet at the same time as said inner envelope (4) supports and partly encloses said sheet (2), so that from the inside (13; 14) of the outer envelope (3) close to its back portion (5) said inner envelope (4) extends in a direction forwards and comprises at least one open space (6) delimited laterally by a double fold (7) on each side, which has a length forwards which extends past the half diameter of the stored sheet (2).

Package

5

10

15

20

25

30

The present invention refers to a package for sheets for example sheet formed information carrier such as CD-sheets, DVD, CDR, CD-RW and so on and comprising an outer envelope and an inner envelope of carton, paper or plastic, wellpapp or the like formed separately or in one on the same piece together with said outer envelope and cooperating with the same and said envelopes are folded in order to constitute a cover which protects the actual sheet or sheets at the same time as the inner envelope carriers and partly encloses the sheet itself.

On the market there are today several different types of envelopes or packages for sheets for example CD-sheets, which usually are manufactured of a solid plastic material. These packages are weak and can very easy get broken during hard handling. Another drawback with this type of package is that it usually has a thickness which is greater than that thickness which easy can be provided by a package of paper or other sheet formed material. The types of packages which are now on the market and consist of folded carton blanks have the drawback that the CD-sheets easily slide out from the same. There are also such types of packages of carton, which are formed as a book and which furthermore comprise a description of the melodies, which are on the CD-sheet. Also this type of package has that drawback that the CD-sheet itself easily slides out from the package when it has been opened.

The object of the present invention is to provide a new type of package for sheet formed objects of the type mentioned above and where the drawbacks existing with the previously known packages have been eliminated. The characterizing features of the invention are set forth in the following claims.

Thanks to the invention a new type of package for sheet formed objects has been provided, which in excellent way

5 fulfills its purposes. The package itself comprises according to the invention an outer envelope and an inner envelope where said inner envelope has a special formation in order to grip and keep the actual sheet in a special way so that the same can not slide out from the package until the same has been opened. The opening of the package is done in such a way 10 that the same is opened in the same way as a book and first after that the package has been opened about to the half and more the sheet itself can be taken out. The taken out of the sheet is made easy in that the envelope in connection with its opening automatically lifts upwards that space, which 15 contains the sheet when the outer envelope has been opened somewhat over half its opening moment, which means that the sheet is very easy to take out for a user. With other words this means that when the package or envelope, which protects the sheet is closed and half opened, the sheet is kept in its 20 place by a folded claw-formation and when the envelope is opened totally said claw-formation opens, lifts up and exposes said sheet in order to make it easy to grip.

The invention is described closer below by aid of a preferable embodiment example in view of the drawings enclosed, in which

- Fig. 1 shows a perspective view of the package according to the invention, in which the same has been opened somewhat and where said sheet has been lifted upwards for its taken out,
- Fig. 2 shows a schematic perspective view in a view oblique from above, where the package is in its closed position,
- Fig. 3 shows the same view as in fig. 2 but in a view obliquely from above and where a package has been opened to about the half and where the claw-formation is going to loosen the sheet,

20

25

30

35

40

- Fig. 4 shows the same view obliquely from above where the package has been opened totally so that the sheet not at all is kept in place by said claw-formation and
- Fig. 5 shows a plan view of the blank which is used as inner envelope for cooperation with said outer envelope and for supporting the sheet itself.

As can be seen from the figures a package 1 is illustrated according a preferred embodiment example of the invention intended for sheets 2, for example sheet formed information carriers, which comprise an outer envelope 3 of carton, paper and plastic, wellpapp or similar and an inner envelope 4 which can be manufactured of a similar material as the outer envelope 3 and which has been double folded to constitute a cover for protecting the sheet 2 at the same time as the inner envelope 4 supports and partly encloses the sheet 2 itself. In the example illustrated the inner envelope is manufactured separately and thereafter fixed to the outer envelope 3 but the inner envelope 4 and outer envelope 3 can also be formed separated from each other.

As can be seen from the figures the inner envelope 4 is fixed and formed in such a way relatively the outer envelope 3 that these two envelopes cooperate with each other in storing and taking out of the sheet 2 from the package 1.

From the inner side 13 of the outer envelope 3 close to its back portion 5 the inner envelope 4 extends in a direction comprises here an open space forwards and 6 delimited laterally of a double fold 7 on each side, which has a length forwards from said back portion 5, which extends past the half diameter of the stored sheet 2, so that during the closed position of the package 1 and up to its mainly half opened position or immediately before the half position said space 6 has an opening width, which, after the extending forwards of said double fold 7 past the half diameter of the stored sheet 2, is less that of the diameter of the sheet 2, in that said double folds 7 converge in a

10

15

20

25

30

35

40

direction towards each other in order to prevent a sliding out of said sheet 2 out from said space 6 and during the continued opening of said package 1 and up to its totally opened position, said space 6 has an opening width, which is greater than the diameter of the sheet 2 at the same time as the space 6 having a stored sheet 2 is automatically lifted upwards and exposes said sheet 2 and makes it easy to grip.

As is closer illustrated in fig. 5 said opened space 6 in the inner envelope 4 is constituted by two double folds 7, which consists of two along a crasing line C, in the illustrated example in the form of a double crasing line, foldable and directed towards each other, triangle formed portions 8,9 and said portions 8,9 in turn are via upper and lower crasing lines A and B foldable formed in said inner envelope 4. The upper crasing lines A extend in each triangle formed portion 10, which in turn are foldable and symmetrically connected via crasing lines D by a triangle formed portion 11 delimited forwards in a direction viewed from said back portion 5 of the last mentioned crasing lines D. The crasing lines D are of the same length and the limit two sides of the triangle formed portion 11, said portion along its base side is delimited of a transversitally extending crasing line D. The crasing line E extends in turn into a portion 12, at which a triangle formed portion 11 is foldable provided. The base of the portion 12 consists of a crasing line F, by which a portion 12 via a flap 12 are foldable connected with any of the two insides 13 or 14 of the outer envelope 3 in a short distance from the back portion 5, i.e. the inside of the front or backside. The flap 17 is fixable against the front inside 13 and is intended to extend in a direction towards the back portion 5 or alternatively in an opposite direction in the direction upwards over the front inside 13. The lower crasing lines B of the double fold 7 extend into a portion 15, which via crasing lines G foldably extend into a portion 16, which is fixed to the back inside 14 of outer envelope 3.

In fig. 5 is thus illustrated how the inner envelope 4 of the package 1 is formed with its crasing lines and portions and

from this figure it is specially the portion 11 having the crasing lines D and E, which make or influence the opening and closing of the claw-formation during the cooperation of the inner envelope 4 with said outer envelope 3.

Claims

5

10

15

20

25

30

- A package for sheets, for example sheet information carriers such as CD-sheets, DVD, CDR, CD-RW and so on and comprising an outer envelope (3) and an inner envelope (4) formed separately or in one and a same piece together with said outer envelope, manufactured by carton, paper, plastic, wellpapp or the like, which have been double folded to constitute a cover protecting the sheets or the actual sheet (2) at the same time as said inner envelope (4) supports and partly encloses said sheet (2), so that from the inside (13;14) of the outer envelope (3) close to its back portion (5) said inner envelope (4) extends in a direction forwards and comprises at least one open space (6) delimited laterally by a double fold (7) on each side, which has a length forwards extending past the half diameter of the stored sheet (2), characterized in that during the closed position and up to is mainly half open position of the package (1) or immediately before the half opened position said space an opening width which, (6) has after the extension forwards of the double fold past the half diameter of the stored sheet (2), is less than the diameter of the by that the double folds (7) converge in a sheet (2) direction towards each other in order to prevent a sliding out of said sheet (2) from the space (6), and during the continued opening of the package (1) and up to its totally opened position said space (6) has an opening width, which is greater than the diameter of the sheet and makes it easy to take out from the space.
- 2. A package according to claim 1, characterized in that during the continued opening of the package and up to its totally opened position the space (6) having the sheet (2) in the same is automatically lifted upwards in order to expose the sheet (2) at the same time as the sheet is easy to grip.
 - 3. A package according to claim 1, characterized in that each double fold (7) is constituted by two portions (8,9) folded towards each other along at least one outer crasing

10

15

20

line (C), which are via upper and lower crasing lines (A,B) foldable formed in said inner envelope (4), said upper crasing lines (A) each extend into their portion (10), which in turn is foldable as symmetrically connected via crasing lines (D) with a portion (11), delimited forwards by the last mentioned crasing lines (D) and backwards by a crasing line (E) extending laterally the width of the outer- and inner envelope (3,4), which extends into a portion (12), which foldable extends into any of the insides (13;14) of the outer envelope (3), i.e. the inside of the front- or backside, a short distance from its back portion (5) via a flap (17), which is fixed against the first inside (13) and which extends into a direction towards the back portion (5) or in an opposite direction towards the first inside (13) at the same time as the lower crasing lines (B) of the double fold (7) extend into a portion (15), which via crasing lines (G) foldably extend into portions (16), which are fixed against the other inside (14) of the outer envelope (3).

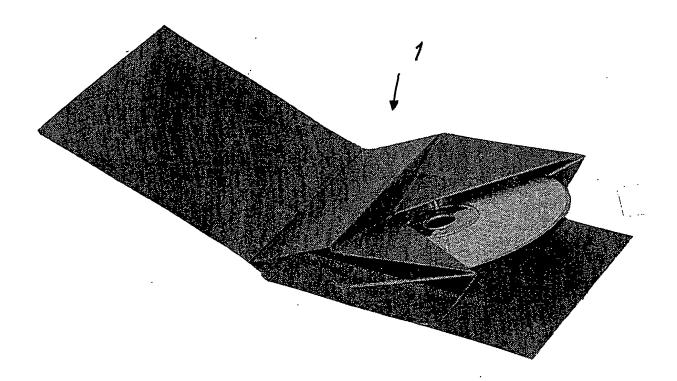
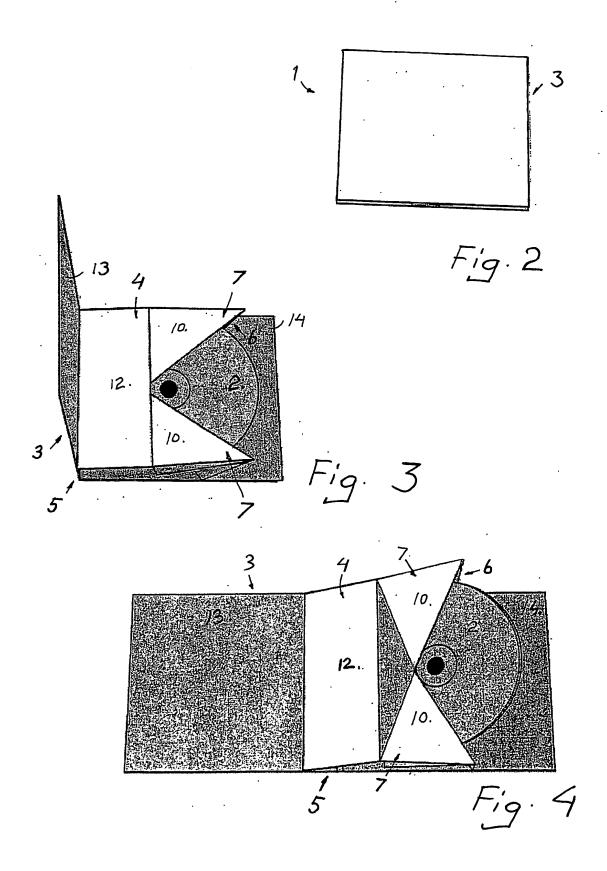
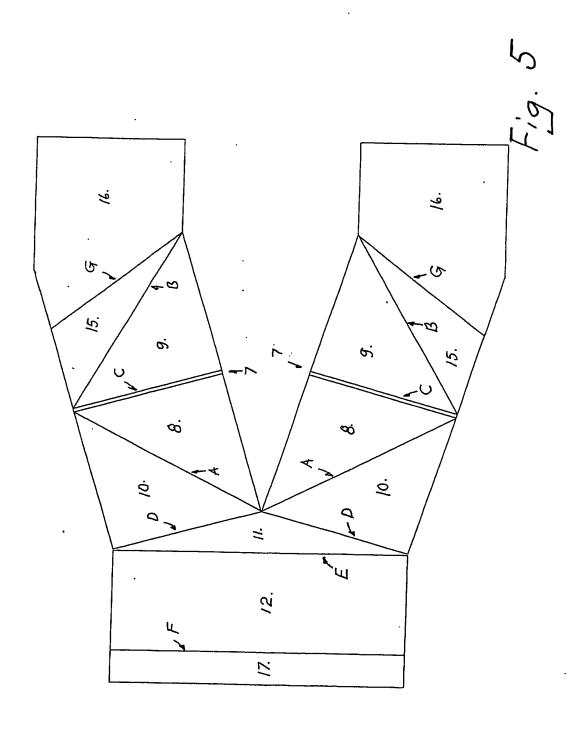


Fig. 1







A. CLASSIFICATION OF SUBJECT MATTER

IPC7: B65D 85/57, G11B 33/04
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: B65D, G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, PAJ, FULLTEXT, EPOQUE, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	* Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 19510090 A1 (BLEICHER-KAIKKIS, SUSANNE), 26 Sept 1996 (26.09.1996), figures 2,4, claims 1-15	1-3
A	DE 19728263 A1 (THIELE, MATTHIAS), 2 April 1998 (02.04.1998), figures 8-10, claims 1-15	1-3
A	US 5522500 A (TAKANORI MORI), 4 June 1996 (04.06.1996), abstract, see figures 1,4,6,8,14, 19-26	1-3

X	Further documents are listed in the continuation of Box	C.	X See patent family annex.
* "A" "E" "L"	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance earlier application or patent but published on or after the international filing date document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"O" "P"	document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed	"Y" 	document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document member of the same patent family
2	e of the actual completion of the international search March 2004	Date	f mailing of the international search report 0 4 -03- 2004
Swe Box	ne and mailing address of the ISA/ edish Patent Office c 5055, S-102 42 STOCKHOLM simile No. +46 8 666 02 86	Beat	a Slusarczyk/Els one No. +46 8 782 25 00



national application No.
PCT/SE 2003/001944

Category*	Citation of document, with indication, where appropriate, of the relevant pa	assages Relevant to claim N
A	US 3785478 A (ASSA DRORI), 15 January 1974 (15.01.1974), column 1, line 22 - line 37, fig 2-6	
		
	,	
!		

INTERNATIONAL SEARCH REPORT Information statent family members

24/12/2003

			CA DE FR GB JP JP NL WO JP US JP US JP	2103407 4339355 2698474 2272685 9323796 5223005 6044791 194438 9302009 9316274 6087287 6236723 5331302 6245508	A,C A,B D A U B,C A A U A A	21/05/199 26/05/199 27/05/199 25/05/199 00/00/000 31/08/199 14/06/199 03/12/200 16/06/199 19/08/199 22/12/199 23/08/199 02/09/199
			DE FR GB JP JP NL NL WO JP JP	4339355 2698474 2272685 9323796 5223005 6044791 194438 9302009 9316274 6087287 6236723	A,C A,B A,B U B,C A A U A	26/05/199 27/05/199 25/05/199 00/00/000 31/08/199 14/06/199 03/12/200 16/06/199 19/08/199 22/12/199 23/08/199
			DE FR GB GB JP JP NL NL WO JP	4339355 2698474 2272685 9323796 5223005 6044791 194438 9302009 9316274 6087287	A,C A,B A,B D A U B,C A A	26/05/199 27/05/199 25/05/199 00/00/000 31/08/199 14/06/199 03/12/200 16/06/199 19/08/199 22/12/199
			DE FR GB GB JP JP NL NL WO	4339355 2698474 2272685 9323796 5223005 6044791 194438 9302009 9316274	A,C A,B A,B D A U B,C A	26/05/199 27/05/199 25/05/199 00/00/000 31/08/199 14/06/199 03/12/200 16/06/199 19/08/199
			DE FR GB GB JP JP NL NL	4339355 2698474 2272685 9323796 5223005 6044791 194438 9302009	A,C A,B A,B D A U B,C A	26/05/199 27/05/199 25/05/199 00/00/000 31/08/199 14/06/199 03/12/200 16/06/199
			DE FR GB GB JP JP NL	4339355 2698474 2272685 9323796 5223005 6044791 194438	A,C A,B A,B D A U B,C	26/05/199 27/05/199 25/05/199 00/00/000 31/08/199 14/06/199 03/12/200
			DE FR GB GB JP JP	4339355 2698474 2272685 9323796 5223005 6044791	A,C A,B A,B D A U	26/05/199 27/05/199 25/05/199 00/00/000 31/08/199 14/06/199
			DE FR GB GB JP	4339355 2698474 2272685 9323796 5223005	A,C A,B A,B D A	26/05/199 27/05/199 25/05/199 00/00/000 31/08/199
			DE FR GB GB	4339355 2698474 2272685 9323796	A,C A,B A,B D	26/05/199 27/05/199 25/05/199 00/00/000
			DE FR GB	4339355 2698474 2272685	A,C A,B A,B	26/05/199 27/05/199 25/05/199
			DE FR	4339355 2698474	A,C A,B	26/05/199 27/05/199
			DE	4339355	A,C	26/05/199
			CA	2102/07	A C	21 /05 /100
322300	A	04/00/1990			Λ	03/09/199
E22E00		04 /06 /1006		2267202	۸	02/00/100
728263	A1	02/04/1998	DE	29616973	U	13/02/199
510090	A1	26/09/1996	DE	29520990	U	13/06/199
	510090 728263 522500	728263 A1	728263 A1 02/04/1998	728263 A1 02/04/1998 DE	728263 A1 02/04/1998 DE 29616973	728263 A1 02/04/1998 DE 29616973 U

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The invention relates to a package for sheets, for example sheet formed information carriers such as CD-sheets, DVD, CDR, CD-RW and so on and comprising an outer envelope (3) and an inner envelope (4) formed separately or in one and a same piece together with said outer envelope, manufactured by carton, paper, plastic, wellpapp or the like which have been folded to constitute a cover protecting the sheets (2) or the actual sheet at the same time as said inner envelope (4) supports and partly encloses said sheet (2), so that from the inside (13;14) of the outer envelope (3) close to its back portion (5) said inner envelope (4) extends in a direction forwards and comprises at least one open space (6) delimited laterally by a double fold (7) on each side, which has a length forwards which extends past the half diameter of the stored sheet (2)

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

☐ BLACK BORDERS
☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
□ FADED TEXT OR DRAWING
BLURRED OR ILLEGIBLE TEXT OR DRAWING
SKEWED/SLANTED IMAGES
COLOR OR BLACK AND WHITE PHOTOGRAPHS
☐ GRAY SCALE DOCUMENTS
☐ LINES OR MARKS ON ORIGINAL DOCUMENT
☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
□ OTHER.

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.